

(FILE 'USPAT' ENTERED AT 09:05:21 ON 04 JUN 1998)  
L1 89691 S TITANIUM DIOXIDE OR ZINC OXIDE OR BARIUM SULFATE OR MAGN  
ESI  
L2 341751 S ACRYLIC ACIDE OR METHACRYLIC ACID OR MALEIC ACID OR STYR  
ENE  
L3 346710 S ACRYLIC ACID OR METHACRYLIC ACID OR MALEIC ACID OR STYRE  
NE

=> s 11 and 13

L4 49703 L1 AND L3

=> s 422/56-61/cclst

L5 3104 422/56-61/CCLST (6 TERMS)  
(422/56+NEXT5/CCLST)

=> s 14 and 15

L6 221 L4 AND L5

=> s 11(1p)13

L7 20755 L1(1P)L3

=> s 17 and 15

L8 89 L7 AND L5

=> s reagent

L9 71086 REAGENT

=> s 18 and 19

L10 84 L8 AND L9

=> s color#####

L11 319896 COLOR#####

=> s 110 and 111

L12 76 L10 AND L11

=> d 112 1-76

1. 5,677,133, Oct. 14, 1997, Dry chemistry cascade immunoassay and affinity assay; Bruce J. Oberhardt, 435/7.1; **422/57, 58, 61**, 73; 435/5, 6, 7.2, 7.4, 7.7, 7.92, 7.93, 7.94, 13, 288.5, 288.7, 810; 436/46, 526, 527, 805, 806, 807, 808, 809, 810 [IMAGE AVAILABLE]

2. 5,660,798, Aug. 26, 1997, Apparatus for red blood cell separation; Sonal R. Doshi, et al., 422/101, **56, 57**; 436/526, 527, 531, 535, 827 [IMAGE AVAILABLE]

3. 5,658,723, Aug. 19, 1997, Immunoassay system using forced convection currents; Bruce Oberhardt, 435/4; **422/56, 58, 61**, 73, 101, 102; 435/7.92, 7.93, 7.94, 7.95, 969, 970, 975; 436/518, 531, 807, 810

[IMAGE AVAILABLE]

4. 5,603,898, Feb. 18, 1997, Dry-type analytical element for immunoassay; Yoshihiro Ashihara, et al., 422/57, 56, 68.1, 69, 70, 99; 435/7.1, 287.2, 287.7; 436/510, 514, 541; 530/387.1, 389.1, 391.1 [IMAGE AVAILABLE]
5. 5,601,991, Feb. 11, 1997, Dry chemistry cascade immunoassay and affinity assay; Bruce J. Oberhardt, 435/7.91; 422/57, 58, 61, 73; 435/5, 6, 7.2, 7.4, 7.7, 7.92, 7.93, 7.94, 13, 808, 810, 970; 436/46, 526, 527, 805, 806, 807, 808, 809 [IMAGE AVAILABLE]
6. 5,536,470, Jul. 16, 1996, Test carrier for determining an analyte in whole blood; Gunter Frey, et al., 422/56, 61; 436/166, 169 [IMAGE AVAILABLE]
7. 5,508,173, Apr. 16, 1996, Analytical element for measurements of enzyme activity; Yoshikazu Amano, et al., 435/28; 422/56, 60; 435/16, 25; 436/169, 170 [IMAGE AVAILABLE]
8. 5,470,757, Nov. 28, 1995, Spectroscopic sample holder and method for using same; James E. Gagnon, et al., 436/164; 356/36, 244; 422/58, 82.08, 82.09; 436/169, 170 [IMAGE AVAILABLE]
9. 5,460,777, Oct. 24, 1995, Analytical element for whole blood analysis; Masao Kitajima, et al., 422/56, 58; 436/170 [IMAGE AVAILABLE]
10. 5,429,932, Jul. 4, 1995, Multilayer analytical element containing niacinamide and method for the determination of ethanol; Richard L. Detwiler, et al., 435/26; 422/57, 60; 435/4, 182; 436/106, 132 [IMAGE AVAILABLE]
11. 5,429,931, Jul. 4, 1995, Multilayer analytical element containing crosslinked binder and method for the determination of ethanol; Richard L. Detwiler, et al., 435/26; 422/57, 60; 435/4, 182; 436/106, 132 [IMAGE AVAILABLE]
12. 5,420,047, May 30, 1995, Method for carrying out immunodiagnostic tests; Heinz-Dieter Brandt, et al., 435/7.9; 422/56; 435/4, 7.92, 28, 805, 970; 436/518, 531, 810 [IMAGE AVAILABLE]
13. 5,416,004, May 16, 1995, Multilayer analytical element containing primary amine buffer and method for the determination of ethanol; Richard L. Detwiler, 435/26; 422/56, 60, 68.1; 435/4, 14, 25; 436/131, 132, 164, 170 [IMAGE AVAILABLE]
14. 5,393,493, Feb. 28, 1995, Analytical element for whole blood; Yoshihiko Makino, et al., 422/56, 57; 436/170 [IMAGE AVAILABLE]
15. 5,344,753, Sep. 6, 1994, Dry analytical element and method for the detection of an aminopeptidase or transpeptidase; John C. Mauck, et al., 435/4; 422/56, 57; 435/16, 24, 25, 805; 436/169, 170 [IMAGE AVAILABLE]
16. 5,336,599, Aug. 9, 1994, Method of measuring analyte using dry analytical element; Masao Kitajima, 435/15; 422/58; 435/4, 16; 436/63, 164, 165, 170 [IMAGE AVAILABLE]
17. 5,215,716, Jun. 1, 1993, Integral multilayer analytical element; Fuminori Arai, 422/56, 57, 58; 436/170 [IMAGE AVAILABLE]
18. 5,174,959, Dec. 29, 1992, Breath component monitoring device; Samar K. Kundu, et al., 422/59, 58, 61, 84, 85; 436/128, 132, 167, 181 [IMAGE AVAILABLE]

19. 5,169,787, Dec. 8, 1992, Test carrier for determining an analyte in a blood sample, procedure for making the carrier and use thereof; Wolfgang-Reinhold Knappe, et al., 436/169; **422/56, 57, 58**; 427/2.13 [IMAGE AVAILABLE]
20. 5,147,777, Sep. 15, 1992, Biologically active reagents prepared from carboxy-containing polymer, analytical element and methods of use; Richard C. Sutton, et al., 435/5; **422/56, 57, 58, 61**; 428/403, 407; 435/6, 7.22, 7.31, 7.32; 436/170, 531, 532, 533, 534, 805; 526/286, 314, 317.1, 318.4 [IMAGE AVAILABLE]
21. 5,110,727, May 5, 1992, Method for performing coagulation assays accurately, rapidly and simply, using dry chemical reagents and paramagnetic particles; Bruce J. Oberhardt, 435/13; 73/863.72, 864.72; 422/13, **57, 58, 60**, 102, 110, 292, 947; 435/288.7, 810; 436/46, 69, 809 [IMAGE AVAILABLE]
22. 5,093,081, Mar. 3, 1992, Dry-type analytical element for immunoassay; Yukio Sudo, et al., **422/56, 55, 57**; 435/7.1 [IMAGE AVAILABLE]
23. 5,071,769, Dec. 10, 1991, Method and device for ketone measurement; Samar K. Kundu, et al., 436/128; **422/58, 61**, 101; 436/130, 165, 167, 169, 170, 177, 178 [IMAGE AVAILABLE]
24. 5,059,526, Oct. 22, 1991, Dry multilayer analytical element for analysis of enzymes or triglycerides; Kazumi Arai, et al., 435/17; **422/56, 61**; 435/18, 19, 22, 25, 26, 805 [IMAGE AVAILABLE]
25. 5,047,322, Sep. 10, 1991, Use of dry analytical elements to determine analytes; Robert E. Emmons, et al., 435/6; **422/57, 58**; 435/7.1, 7.4, 7.92, 17, 26; 436/515, 516 [IMAGE AVAILABLE]
26. 5,045,477, Sep. 3, 1991, Analytical methods utilizing reducible components; Robert T. Belly, et al., 436/164; **422/56**; 435/4; 436/172 [IMAGE AVAILABLE]
27. 5,028,528, Jul. 2, 1991, Analytical element for theophylline determination using buffer in a subbing zone; Paul H. Frickey, et al., 435/21; 422/55, **56, 57**; 435/184, 805, 810; 436/825 [IMAGE AVAILABLE]
28. 5,019,347, May 28, 1991, Integral multilayer analytical element; Nobuo Hiratsuka, et al., **422/56, 57, 58**; 435/805; 436/170 [IMAGE AVAILABLE]
29. 5,004,685, Apr. 2, 1991, Dry-type multilayer analytical element; Fuminori Arai, et al., 435/25; **422/56, 57**; 435/10, 11, 14, 19, 28, 805; 436/810, 904 [IMAGE AVAILABLE]
30. 4,970,172, Nov. 13, 1990, Method and device for ketone measurements; Samar K. Kundu, 436/130; **422/60, 85, 87** [IMAGE AVAILABLE]
31. 4,966,784, Oct. 30, 1990, Method of preparing integral multilayer analytical element; Mitsutoshi Tanaka, et al., 427/2.13; **422/56**; 436/74, 79 [IMAGE AVAILABLE]
32. 4,937,047, Jun. 26, 1990, Analytical element; Morio Kobayashi, et al., **422/56, 58**; 435/16, 17, 25, 805; 436/71, 169 [IMAGE AVAILABLE]
33. 4,906,439, Mar. 6, 1990, Biological diagnostic device and method of use; Gerd Grenner, **422/56, 55, 58**, 100, 101; 435/805; 436/165, 169, 170, 175, 177, 180, 518, 524, 531 [IMAGE AVAILABLE]
34. 4,895,704, Jan. 23, 1990, Integral multilayer analytical element;

Fuminori Arai, et al., 422/57, 56; 435/805; 436/169, 870 [IMAGE AVAILABLE]

35. 4,880,749, Nov. 14, 1989, Analytical element and its use in a whole blood hemoglobin assay; Brent A. Burdick, et al., 436/66; 422/56, 57, 58; 435/805; 436/170 [IMAGE AVAILABLE]

36. 4,871,679, Oct. 3, 1989, Integral multilayer analytical element for determining calcium and its use; Mitsutoshi Tanaka, et al., 436/79; 422/56, 57; 436/170 [IMAGE AVAILABLE]

37. 4,870,005, Sep. 26, 1989, Multilayer analysis element; Yutaka Akiyoshi, et al., 435/7.93; 422/55, 56, 57; 435/805, 970; 436/169, 170, 810 [IMAGE AVAILABLE]

38. 4,868,106, Sep. 19, 1989, Analytical element and method for determining a component in a test sample; Tsukasa Ito, et al., 435/7.7; 422/56, 57; 435/7.5, 7.71, 7.72, 7.8, 7.92, 7.94, 805, 968; 436/501, 518, 524, 527, 528, 529, 530, 531, 800, 810, 827, 828 [IMAGE AVAILABLE]

39. 4,857,271, Aug. 15, 1989, Reducible compounds and analytical compositions, elements and methods utilizing same; Robert T. Belly, et al., 422/55, 56, 57; 430/223, 958; 436/903 [IMAGE AVAILABLE]

40. 4,849,340, Jul. 18, 1989, Reaction system element and method for performing prothrombin time assay; Bruce Oberhardt, 435/13; 73/863.71, 864.72; 422/57, 58, 73, 110, 947; 435/7.1; 436/69, 517, 525, 526 [IMAGE AVAILABLE]

41. 4,837,043, Jun. 6, 1989, Process for the production of test strips by casting method; Helmut Engelmann, et al., 435/4; 156/244.19; 264/134; 422/56; 427/2.13, 293 [IMAGE AVAILABLE]

42. 4,828,983, May 9, 1989, Use of phenols and anilines to increase the rate of peroxidase catalyzed oxidation of leuco dyes; Gregory J. McClune, 435/7.92; 422/56; 430/223; 435/10, 11, 14, 17, 25, 28 [IMAGE AVAILABLE]

43. 4,820,649, Apr. 11, 1989, Method and kit having layered device for detecting biological component by interference color; Takeyuki Kawaguchi, et al., 436/501; 422/57; 436/170, 518, 525, 805, 808 [IMAGE AVAILABLE]

44. 4,806,470, Feb. 21, 1989, Analytical element and method for theophylline determination having increased alkaline phosphatase isoenzyme; Paul H. Frickey, et al., 435/21; 422/56; 435/184, 805 [IMAGE AVAILABLE]

45. 4,788,153, Nov. 29, 1988, Method for the determination of bilirubin and an element useful therein; Richard L. Detwiler, et al., 436/97; 422/56, 57; 436/170 [IMAGE AVAILABLE]

46. 4,783,315, Nov. 8, 1988, Analysis material sheet; Fuminori Arai, et al., 422/56, 57; 428/475.2, 476.3 [IMAGE AVAILABLE]

47. 4,781,890, Nov. 1, 1988, Multilayer chemical analytical element; Fuminori Arai, et al., 422/56, 57, 58; 435/14, 29, 805; 436/95, 170, 175 [IMAGE AVAILABLE]

48. 4,753,890, Jun. 28, 1988, Analytical element and method for determination of magnesium ions; Margaret J. Smith-Lewis, et al., 436/74; 422/56, 57, 58; 436/79 [IMAGE AVAILABLE]

49. 4,732,849, Mar. 22, 1988, Multilayered chemical analysis material for analysis of aqueous liquids; Osamu Seshimoto, et al., 435/12;

422/56; 435/805 [IMAGE AVAILABLE]

50. 4,732,736, Mar. 22, 1988, Analytical element for the detection hydrogen peroxide; Morio Kobayashi, et al., 422/56, 57, 58; 435/28, 805; 436/135, 170, 904 [IMAGE AVAILABLE]

51. 4,689,309, Aug. 25, 1987, Test device, method of manufacturing same and method of determining a component in a sample; James E. Jones, 436/95; 422/56; 427/397.7; 435/805; 436/169 [IMAGE AVAILABLE]

52. 4,680,259, Jul. 14, 1987, Analytical element and method for **colorimetric** determination of total cholesterol; Peter E. Cumbo, et al., 435/11; 422/56; 435/19, 25, 28, 805 [IMAGE AVAILABLE]

53. 4,649,123, Mar. 10, 1987, Ion test means having a hydrophilic carrier matrix; Steven C. Charlton, et al., 436/79; 422/56; 427/2.12, 2.13; 436/74, 170, 172, 175 [IMAGE AVAILABLE]

54. 4,645,744, Feb. 24, 1987, Unified test means for ion determination; Steven C. Charlton, et al., 436/74; 422/56; 436/79, 175 [IMAGE AVAILABLE]

55. 4,557,901, Dec. 10, 1985, Analytical element; Mikio Koyama, et al., 422/56, 57; 435/805 [IMAGE AVAILABLE]

56. 4,548,905, Oct. 22, 1985, **Reagent** composition, dry element and method for determination of total bilirubin; Tai-Wing Wu, 436/97; 422/56, 57; 436/170 [IMAGE AVAILABLE]

57. 4,547,461, Oct. 15, 1985, Composition, analytical element and method for the quantification of creatine kinase; Theodore W. Esders, et al., 435/17; 422/56, 57; 435/15, 25, 28, 194, 805, 810 [IMAGE AVAILABLE]

58. 4,540,670, Sep. 10, 1985, Method for measurement of liquid samples; Fuminori Arai, et al., 436/170; 422/56; 435/805 [IMAGE AVAILABLE]

59. 4,503,145, Mar. 5, 1985, Quantitative analysis film; Harumi Katsuyama, et al., 435/16; 422/56; 435/28, 805 [IMAGE AVAILABLE]

60. 4,486,537, Dec. 4, 1984, Analytical element and method of use; Mikio Koyama, et al., 436/170; 422/56, 57; 435/805 [IMAGE AVAILABLE]

61. 4,478,942, Oct. 23, 1984, Quantitative analysis film and a method for **colorimetric** analysis using the same; Harumi Katsuyama, et al., 436/66; 422/56; 435/28, 805; 436/135, 170, 904 [IMAGE AVAILABLE]

62. 4,468,467, Aug. 28, 1984, Diazonium salt for bilirubin assay; Bruce E. Babb, et al., 436/97; 422/56; 436/903; 534/558, 564 [IMAGE AVAILABLE]

63. 4,459,358, Jul. 10, 1984, Multilayer element for analysis; Carl M. Berke, 436/170; 422/56; 435/805; 436/810 [IMAGE AVAILABLE]

64. 4,452,887, Jun. 5, 1984, Integral multi-layered element containing glucose oxidase for determining glucose; Masao Kitajima, et al., 435/14; 422/56; 435/805 [IMAGE AVAILABLE]

65. 4,418,037, Nov. 29, 1983, **Color** indicator composition and film for detecting hydrogen peroxide; Harumi Katsuyama, et al., 422/56, 57; 435/14, 28, 805; 436/95, 135, 904 [IMAGE AVAILABLE]

66. 4,390,343, Jun. 28, 1983, Multilayer analytical element having an impermeable radiation diffusing and blocking layer; Bert Walter, 435/7.72; 422/56, 57; 427/2.13; 435/7.7, 7.9, 805; 436/170, 518, 810 [IMAGE AVAILABLE]

67. 4,292,272, Sep. 1981, Multilayer analysis sh for analyzing liquid samples; Masao Kitajima, et al., 422/57, 56 [IMAGE AVAILABLE]
68. 4,248,829, Feb. 3, 1981, Integrated analytical material suitable for simultaneously performing a plurality of analyses; Masao Kitajima, et al., 422/56, 57; 435/4, 805 [IMAGE AVAILABLE]
69. RE 30,267, May 6, 1980, Multilayer analytical element; Barbara J. Bruschi, 436/170; 422/56, 57, 58; 435/12; 436/71, 108, 903, 904 [IMAGE AVAILABLE]
70. 4,166,093, Aug. 28, 1979, Reduction of detectable species migration in elements for the analysis of liquids; Margaret J. Smith-Lewis, et al., 422/56, 57; 435/14 [IMAGE AVAILABLE]
71. 4,144,306, Mar. 13, 1979, Element for analysis of liquids; John Figueras, 422/56; 435/14, 22; 436/95, 170 [IMAGE AVAILABLE]
72. 4,066,403, Jan. 3, 1978, Multilayer analytical element; Barbara J. Bruschi, 435/12; 422/57; 436/71, 108, 111, 170 [IMAGE AVAILABLE]
73. 4,050,898, Sep. 27, 1977, Integral analytical element; Charles A. Goffe, deceased, et al., 422/57 [IMAGE AVAILABLE]
74. 4,042,335, Aug. 16, 1977, Integral element for analysis of liquids; Pierre L. Clement, 422/56; 435/13, 14, 805 [IMAGE AVAILABLE]
75. 3,992,158, Nov. 16, 1976, Integral analytical element; Edwin P. Przybylowicz, et al., 422/57; 188/1.11L; 422/58; 435/11, 14, 28, 808 [IMAGE AVAILABLE]
76. 3,616,251, Oct. 26, 1971, TEST DEVICE; Gianni Linoli, et al., 435/12; 422/56, 61; 435/16, 18, 19, 21, 24, 805; 436/163, 903 [IMAGE AVAILABLE]